To: glovato@ndep.nv.gov[glovato@ndep.nv.gov]
Cc: demme@ndep.nv.gov[demme@ndep.nv.gov]; CJoseph@ag.nv.gov[CJoseph@ag.nv.gov]; Marcus.Ferries@bp.com[Marcus.Ferries@bp.com]; ronald.halsey@bp.com[ronald.halsey@bp.com]; Oman, Jack[Jack.Oman@bp.com]; Seter, David[Seter.David@epa.gov]; Ball, Harold[Ball.Harold@epa.gov]; Helmlinger, Andrew[Helmlinger.Andrew@epa.gov]; Curley, Richard (Contractor)[rcurley@curleylegal.com]; JGARDNER@ndep.nv.gov[JGARDNER@ndep.nv.gov]; jrcollins@ndep.nv.gov[jrcollins@ndep.nv.gov]
From: Johnson, Brian S
Sent: Mon 3/10/2014 5:37:52 PM
Subject: FW: Comments on the Yerington OU-8 NDEP Proposal
Figure 1.pdf

Greg,

The missing figure is attached.

Brian S. Johnson

Strategy Manager

From: Zimmerman, Chuck [mailto:CZimmerman@brwncald.com]
Sent: Monday, March 10, 2014 10:20 AM
To: Curley, Richard (Contractor); Johnson, Brian S
Subject: RE: Comments on the Yerington OU-8 NDEP Proposal

Figure 1 is attached.

Chuck Zimmerman
Vice President
Brown and Caldwell
CZimmerman@brwncald.com
T 775.283.0810 | **C** 775.233.5575

From: Richard Curley [mailto:rcurley@curleylegal.com]

Sent: Sunday, March 09, 2014 12:36 PM
To: Brian Johnson
Cc: Zimmerman, Chuck
Subject: FW: Comments on the Yerington OU-8 NDEP Proposal

Brian: I believe the attached draft from Chuck contains the figure you are looking for. However, it is a pdf, so I think we will need to wait for Chuck to send it as a separate file before you can send it out to Greg (unless you know how to edit a pdf in a way I don't). Rich

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From: Zimmerman, Chuck [CZimmerman@brwncald.com]
Sent: Wednesday, February 19, 2014 4:30 PM
To: 'Brian S. Johnson (Brian.S.Johnson@bp.com); Richard Curley; sriese@ensci-inc.com
Cc: Jack.Oman@bp.com; jbatchelder@envirosolve.com; James.Lucari@bp.com
Subject: Comments on the Yerington OU-8 NDEP Proposal

Gents:

Per our discussion yesterday, please see the following comments and questions on the Yerington OU-8 Proposal dated 2/16/14, which was prepared by the Nevada Division of Environmental Protection - Bureau of Corrective Actions (NDEP). The OU-8 Proposal is intended to: 1) develop the preferred alternative for capping heap leach pads (HLPs) consistent with Alternative 6 as presented in the Draft Final Feasibility Study (FS) for Arimetco Facilities dated May 2012; and 2) prepare a 10% engineering design and cost estimate (i.e., draft Proposed Plan) for the to-be-developed preferred alternative that is consistent with 2) EPA (July 1999) guidance 'A Guide to Preparing Proposed Plans, Records of Decision and Other Remedy Selection Decision Documents'. The Proposed Plan will include phased actions "for complete reclamation of the OU-8 heaps and fluid management system (FMS) and long-term management of FMS residuals". Once selected, the preferred alternative will be reviewed by NDEP's contractor as Task 2 of the Proposal.

General Comments and Questions

- The requested Proposed Plan appears to be the next phase of the FS. As such, the plan would likely be required to meet all CERCLA requirements and would go beyond the requirements of a Final Permanent Closure Plan (FPCP) for the HLPs if NDEP - Bureau of Mining Regulation and Reclamation (BMRR) had sole oversight of the project.

- NDEP's proposal will require a significant effort, which is not reflected in the time frame provided in the flow sheet attached to the proposal. The Proposed Plan may be available six

months after all technical questions that arise during a planned March 2014 scoping meeting, and any follow-up questions or issues, are resolved. In addition, the issues presented in the attached document ('Arimetco HLP Cover Construction Elements'), which describes haul road and water supply elements for phased capping of the HLPs, are anticipated to increase the time required to produce the Proposed Plan. Given these issues, a more prudent (but still preliminary) time frame would be nine months after the March meeting.

- NDEP's proposal references EPA guidance (July 2009), which lists the following major sections for a proposed plan: Introduction, Site Background, Site Characteristics, Scope and Role, Remedial Action Objectives, Summary of Alternatives, Evaluation of Alternatives, Preferred Alternative and Community Participation. Will NDEP and EPA require all of this information in the Proposed Plan, or will some condensed version be acceptable (e.g., how extensive will the nine criteria analysis be)? Who will prepare the Proposed Plan Fact Sheet. if needed? If the Proposed Plan can be condensed, the time frames suggested above may be shortened.

Specific Comments

Specific comments regarding the following activities that were provided by NDEP in their proposal are annotated below (red font):

1. Perform a technical evaluation of Alternative 6 as described in the FS. Requires further discussion to understand the scope.

2. Develop a prioritized, phased and iterative, strategy for OU-8 HLP closure and FMS management as a selected remedy with approximate costs. Work should be prioritized and sequenced by HLP that contributes the most drain-down fluid, referring to updated water balance and fluids management technical memo being prepared by B&C in January 2014. Consider how and when to manage current FMS problems, such as the VLT leak detector leaks, in the overall FMS prioritization strategy. The aspect of managing leak detector leaks requires further discussion to understand the scope.

3. Identify specific ponds and ditches that will be affected by each individual HLP closure, and identify opportunities for addressing currently leaking ponds/ditches, liners in need of repair/replacement. Analyze under what closure methods the ponds/ditches, liners will be addressed. The aspect of managing leak detector leaks and repairing/replacing liners requires

further discussion to understand the scope.

4. Analyze merits and combined options for pre-cover grading of heaps to reduce drain-down volumes by directing precipitation away from heap infiltration either as a stand-alone action at some heaps, or as a first step instead of post-cover grading only. All HLP covers should be constructed to promote efficient stormwater management and limit infiltration.

5. Analyze and compare options for cap cover vs entire heap cover. Some heaps may require flattening of the side slopes for a full cover. Include slope and grading constraints and costs, and identify which heaps could be just cap-covered. Any aspect of this comparison element will necessarily expand the scope of the Proposed Plan by requiring that regarded HLPs to nominal 2.5:1 or 3:1 slopes would affect adjacent Anaconda facilities (e.g., waste rock piles and VLT pile). The preferred alternative may, necessarily, be limited to a top-deck cap. Requires further discussion to understand the scope.

6. Analyze and compare various alternatives for the 4-acre pond: capping in place, excavation and placement in on-site repository, and re-mining. Identify the re-mining methods/costs, etc. if that is the selected option. This is not necessary for covering the HLPs, and should be considered a separate closure project. Requires further discussion to understand the scope.

7. For the Phase 1 HLP, analyze option of consolidation with Slot HLP vs separate cover, including cost analyses and benefits comparisons, as well as feasibility constraints. No comment.

8. Identify and provide analysis of effects of each HLP remedy on FMS system, including capability of FMS to handle emergency storm events during construction and after closure. Analyze the effects of phased implementation on overall FMS capability as compared to various sized storm events, including 25 year and 100 year 24 hour storm events. No comment.

9. Research and compare alternative cover material thicknesses, and provide cost estimates of the various choices, consistent with BMRR cover guidance and regulation. No Site-specific data are available to make this assessment. In general, a thicker alluvial cover would be more efficient in retaining soil moisture and promoting volunteer vegetative growth. Requires further discussion to understand the scope. See comment below.

10. Identify borrow source areas and provide cost estimates for various choices; also identify all constraints such as property ownership, public land agency requirements, etc. See attached memorandum. Requires further discussion to understand the scope.

11. Use the BMRR Standard Reclamation Cost Estimator for performing all cost estimates and analyses. For leading option, compare costs incorporating Davis Bacon labor rates so that the range of potential costs if EPA were to perform remedy can be estimated. No comment.

12. Research and provide comparative cost analysis of closure of all evaporation ponds, and provide recommendation for timing/sequence of closure steps. No comment.

13. Provide the methods, costs and associated activities essential to long-term monitoring required by the selected, phased, remedial actions. Requires further discussion to understand the scope.

Specific comments regarding the information presented in the Draft Final FS:

- Alternative 6 in the FS (Table ES-2) describes a 4-foot thick cover. Based on discussions with Mr. Todd Process, Permit Writer for NDEP-BMRR, a 2-foot cover will be adequate for the Arimetco HLPs. (there is no guidance document for HLP covers).

- Page 4-7 (first paragraph) indicates that "spray sealant (as used in Alternative 4) on HLP side slopes would also be part of Alternative 6". This technology should not be included in the Proposed Plan because, based on the calibrated water balance model, the contribution to HLP drain-down from side-slope run-off (7.1%) and infiltration (4.2%) contributes a small percentage to the overall drain-down volume (currently the total drain-down rate is less than 10gpm). In addition, the application of sealant on steep side-slopes is: 1) difficult to implement conduct performance monitoring; 2) may require frequent re-applications; and 3) from a health & safety standpoint, such applications may not be allowed pursuant to ARC worker safety requirements.

Let me know if you have any questions about the information above or the attachment.

Thanks,

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